

Claims

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a)

1. An IVUS system which comprises:
- a) a catheter (3) having mounted at or near its distal end an ultrasonic transducer array;
 - b) a catheter interface module (4) connected to the proximal end of the catheter (3);
 - c) a display monitor (12);
 - d) a control device (7, 13, 16);
 - e) a signal processing data entry and data storage device (9) for processing and storing the data derived from energisation of the ultrasonic transducer array to output a signal to the display monitor (12) in order to display an image of the interior of a patient's body;
 - f) a bed (14) for supporting a patient; characterised in that:
 - (i) the catheter interface module(4), the display monitor (12) and the control device (7, 13, 16) are located adjacent to the bed (14) such as to be easily viewed and operated respectively by a clinician; and
 - (ii) the signal processing data entry and data storage device (9) is located remotely from the bed at a sufficient distance to enable a clear space around the bed for occupation by a medical team so that they can be adjacent to the patient.
2. An IVUS system as claimed in claim 1 characterised in that

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there is located remotely from the bed one or more of the following:

- (i) a power distribution unit (8);
- (ii) a video recorder (10);
- (iii) a video printer (11).

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3. A system as claimed in claim 1 or 2 in which the display monitor comprises a flat screen monitor.

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4. A system as claimed in any previous claim in which the control device incorporates means to enable control instructions to be given by voice and incorporates voice recognition means for accepting and implementing those instructions.

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5. A system as claimed in any previous claim in combination with an ultrasound system which employs a transducer which in use is placed externally of the patient.

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6. A system as claimed in any previous claim in combination with an X-ray system.

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7. A system as claimed in any previous claim in which the control device includes an infra-red remote control device to enable control instructions to be given from a position adjacent the patient to the remotely located units.

8. A system as claimed in any previous claim in which the display monitor is mounted on the catheter interface module.

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9. A method of arranging the component or units of the IVUS system as defined in any of claims 1 or claims 2 to 8 when dependant upon claim 1 which method comprises:

- 5 a) locating the catheter interface module (4) the image monitor (12) and the control device (7, 13, 16) adjacent the bed (14) such as to be easily viewed and operated respectively by a clinician; and
- 10 b) locating the signal processing data entry and data storage device (9) remotely from the bed (14) at a sufficient distance to enable a clear space around the bed for occupation by a medical team so that the team can be adjacent the patient.

10. A method as claimed in claim 9 comprising locating remote from the bed one or more of:

- 15 (i) a power distribution unit (8);
- (ii) a video recorder (10);
- (iii) a video printer (11).

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